

VTPSA Risk Assessment Workbook

This workbook contains scoring manuals and Vermont norms for the most commonly used sex offender risk assessment instruments used in Vermont, namely, the SOTIPS, VASOR-2, and Static-99R. This section of the workbook contains information about how to use these instruments in combination for preparing presentence investigation reports, assigning community supervision levels, and assessing treatment progress. As detailed in the Appendix, these instruments are designed for use with adult males who have been convicted of one or more qualifying sex offenses and committed at least one of these sex offenses after their 18th birthday.

Initial Static Risk Assessment and Presentence Investigation Reports

Combined VASOR-2 and Static-99R Risk Categories and Estimated Recidivism Rates

If you are conducting an initial static risk assessment and/or writing a Presentence Investigation Report about an individual who is about to be sentenced for an index sex offense, follow these steps to assess the individual's recidivism risk using his combined VASOR-2 and Static-99R risk category.

Step #1 - Identify the individual's combined VASOR-2 and Static-99R risk category in Table 1.

Step #2 - Use this risk category to identify the estimated 5-year sexual recidivism rate in Table 2.

Example. Take the example of an individual whose VASOR-2 score is 7 and Static-99R is 2. As shown in Table 1, in the "VASOR-2 risk category and score" column, a VASOR-2 score of 7 is in the "Moderate-low" category. In the "Static-99R risk category and score" row, a Static-99R score of 2 is also in the "Moderate-low" risk category. The intersection of these two scores and risk category falls in the combined overall "Moderate-low" risk category.

In Table 2, in the "Risk category" column, find the "Moderate-low" risk category. As shown in the "Percent of sample" column, 36.2% of the 887 Vermont sex offenders on which the norms in these tables are based (see Appendix, Study #1) scored in the "Moderate-low" category. It also shows that 44.9% scored lower and only 19.0% scored higher. As shown in the "Percent recidivism" column, among sex offenders in the "Moderate-low" risk category, the estimated 5-year sexual recidivism rate was 4.8%. This 4.8% rate is similar to the average rate of sexual recidivism among the entire group of 887 sex offenders, which was 5.5% and is shown in the last row of the "Percent recidivism" column. The "95% Confidence Interval" column concerns the margin of error rate for estimates of sexual recidivism in this study, which for the "Moderate-low" risk category was between 3.8% and 6.2%.

Table 1. Combined VASOR-2 and Static-99R Risk Categories

VASOR-2 Risk category and score		Static-99R Risk category and score			
		Low (-3 to 1)	Moderate-low (2 to 3)	Moderate-high (4 to 5)	High (6 to 12)
Low	0 to 5	Low	Low	Moderate-low	Moderate-high
Moderate-low	6 to 8	Low	Moderate-low	Moderate-low	Moderate-high
Moderate-high	9 to 11	Moderate-low	Moderate-low	Moderate-high	High
High	12 to 22	Moderate-high	Moderate-high	High	High

Table 2. Estimated 5-Year Sexual Recidivism Rates by Combined VASOR-2 and Static-99R Risk Categories

Risk category	Percent of sample	Percent recidivism	95% Confidence Interval
Low	44.9	2.2	1.5 - 3.2
Moderate-low	36.2	4.8	3.8 - 6.2
Moderate-high	10.5	10.3	4.9 - 20.1
High	8.5	20.3	12.6 - 31.0
Totals	100.0	5.5	2.1 - 13.4

Note. $N = 887$; $AUC = .73$; $p < .001$

The following three tables show the estimated 5-year recidivism rates for violent and any criminal offenses, as well as return to prison rates, for combined VASOR-2 and Static-99R risk categories.

Table 3. Estimated 5-Year Violent (including Sexual) Recidivism Rates by Combined VASOR-2 and Static-99R Risk Categories

Risk category	Percent of sample	Percent recidivism	95% Confidence Interval
Low	44.9	7.8	4.6 - 12.9
Moderate-low	36.2	13.8	8.0 - 22.6
Moderate-high	10.5	23.2	17.4 - 30.1
High	8.5	36.3	25.4 - 48.8
Totals	100.0	14.0	4.5 - 36.0

Note. $N = 887$; AUC = .68; $p < .001$

Table 4. Estimated 5-Year Any Criminal Recidivism Rates for Combined VASOR-2 and Static-99R Risk Categories

Risk category	Percent of sample	Percent recidivism	95% Confidence Interval
Low	44.9	22.5	14.9 - 32.5
Moderate-low	36.2	36.1	23.3 - 51.1
Moderate-high	10.5	52.2	47.2 - 57.2
High	8.5	68.0	56.5 - 77.6
Totals	100.0	34.4	10.6 - 69.9

Note. $N = 887$; AUC = .68; $p < .001$

Table 5. Estimated 5-Year Return to Prison Rates for Combined VASOR-2 and Static-99R Risk Categories

Risk category	Percent of sample	Return to prison rate	95% Confidence Interval
Low	44.9	33.4	27.2 - 40.2
Moderate-low	36.2	50.2	39.9 - 60.6
Moderate-high	10.5	67.0	57.6 - 75.3
High	8.5	80.4	78.7 - 81.9
Totals	100.0	47.0	29.6 - 65.2

Note. $N = 887$; AUC = .66; $p < .001$

Level of Supervision and Treatment Progress

Combined VASOR-2 and SOTIPS Risk Categories and Estimated Recidivism Rates

If you are evaluating an individual to assign an appropriate **level of supervision** in the community or assess **treatment progress**, use the following steps.

Step #1 - Identify the individual's combined VASOR-2 and SOTIPS risk category in Table 6.

Step #2 - Use this risk category to identify estimated 1- and 3-year sexual recidivism rates in Table 7.

Example. Take the example of an individual whose VASOR-2 score is 7 and SOTIPS score is 23. As shown in Table 6, in the “VASOR-2 risk category and score” column, a VASOR-2 score of 7 is in the “Moderate-low” category. In the “SOTIPS risk category and score” column, a SOTIPS score of 23 is in “High” risk category. The intersection of these two scores and risk categories falls in the combined overall “Moderate-high” risk category.

In Table 7, in the “Risk category” column, find the “Moderate-high” risk category. As shown in the “3-year” “Percent of sample” column, 15.3% of the 749 of sex offenders in the Vermont sample described in this workbook (see Appendix, Study #2) scored in the “Moderate-high” range. It also shows that 75.7% scored lower and only 9.0% score higher. As shown in the “Percent recidivism” column, among sex offenders in the “Moderate-high” risk category, the estimated 3-year sexual recidivism rate was 7.7%. This 7.7% rate is nearly two times the average rate of sexual recidivism among the entire group of 749 sex offenders, which was 4.3% as shown in the last row of the “Percent recidivism” column. The “95% CI (Confidence Interval)” column concerns the margin of error rate for estimates of sexual recidivism in this study, which for the “Moderate-high” category was between 3.7% and 15.6%.

Table 6. Relative Risk Category Categories for Combined VASOR-2 and SOTIPS Scores

VASOR-2 Risk category and score		SOTIPS Risk category and score		
		Low (0 to 10)	Moderate (11 to 20)	High (21 to 48)
Low	0 to 5	Low	Low	Moderate-low
Moderate-low	6 to 8	Low	Moderate-low	Moderate-high
Moderate-high	9 to 11	Moderate-low	Moderate-high	High
High	12 to 22	Moderate-high	High	High

Table 7. Estimated 1- and 3-Year Sexual Recidivism Rates by Combined VASOR-2 and SOTIPS Risk/Need Categories

Risk/Need Category	1-year (<i>n</i> = 754; AUC = .78; <i>p</i> < .001)			3-year (<i>n</i> = 749; AUC = .77; <i>p</i> < .001)		
	Percent of sample	Percent recidivism	95% CI	Percent of sample	Percent recidivism	95% CI
Low	52.9	0.5	0.2 - 1.3	52.0	1.4	0.6 - 3.3
Moderate-low	22.5	1.3	0.5 - 3.6	23.7	3.3	1.4 - 7.8
Moderate-high	15.5	3.3	1.8 - 5.8	15.9	7.6	3.9 - 14.3
High	9.1	8.0	4.3 - 14.4	9.5	16.5	8.8 - 28.7
Totals	100.0	1.9	0.6 - 5.4	100.0	4.3	1.1 - 15.4

The following three tables show the estimated 5-year recidivism rates for violent and any criminal offenses, as well as return to prison rates, for combined VASOR-2 and SOTIPS risk categories.

Table 8. Estimated 1- and 3-Year Violent (including Sexual) Recidivism Rates by Combined VASOR-2 and SOTIPS Risk/Need Categories

Risk/Need Category	1-year (<i>n</i> = 751; AUC = .72; <i>p</i> < .001)			3-year (<i>n</i> = 746; AUC = .69; <i>p</i> < .001)		
	Percent of sample	Recidivism rate	95% CI	Percent of sample	Recidivism rate	95% CI
Low	53.3	1.6	0.8 - 3.3	53.0	4.4	2.6 - 7.6
Moderate-low	22.5	3.1	1.4 - 6.6	23.0	8.0	4.3 - 14.5
Moderate-high	15.2	5.8	3.0 - 10.7	15.1	14.0	6.4 - 20.3
High	9.0	10.6	5.6 - 19.2	8.9	23.3	15.1 - 34.2
Totals	100.0	3.5	1.0 - 11.2	100.0	8.5	3.7 - 18.2

Table 9. Estimated 1- and 3-Year Any Criminal Recidivism Rates by Combined VASOR-2 and SOTIPS Risk/Need Categories

Risk/Need Category	1-year (<i>n</i> = 745; AUC = .67; <i>p</i> < .001)			3-year (<i>n</i> = 740; AUC = .66; <i>p</i> < .001)		
	Percent of sample	Recidivism rate	95% CI	Percent of sample	Recidivism rate	95% CI
Low	54.1	6.0	3.8 - 9.4	53.9	14.6	10.6 - 20.0
Moderate-low	22.0	9.8	5.9 - 15.8	22.6	22.7	15.5 - 32.0
Moderate-high	14.9	15.5	9.9 - 23.4	14.6	33.5	26.4 - 41.4
High	9.0	23.8	15.4 - 34.9	6.7	46.3	35.9 - 57.0
Totals	100.0	10.0	4.0 - 22.7	100.0	22.3	12.9 - 35.7

Table 10. Estimated 1- and 3-Year Return to Prison Rates by Combined VASOR-2 and SOTIPS Risk/Need Categories

Risk/Need Category	1-year (<i>n</i> = 734; AUC = .76; <i>p</i> < .001)			3-year (<i>n</i> = 729; AUC = .73; <i>p</i> < .001)		
	Percent of sample	Return to prison rate	95% CI	Percent of sample	Return to prison rate	95% CI
Low	55.3	9.1	6.2 - 13.1	55.0	20.3	15.2 - 26.5
Moderate-low	22.2	20.9	16.5 - 26.1	22.6	40.0	31.6 - 49.0
Moderate-high	13.9	41.2	26.9 - 57.1	13.8	63.6	52.2 - 74.3
High	8.5	64.9	49.6 - 77.7	8.6	82.0	71.4 - 89.3
Totals	100.0	21.3	8.0 - 45.6	100.0	36.4	19.4 - 57.7

Appendix

Target Population

The SOTIPS, VASOR-2, and Static-99R are designed for use with adult males who have been convicted of one or more qualifying sex offenses and committed at least one of these sex offenses after their 18th birthday. The studies on which Vermont norms were based and described here used the same definition of a qualifying sex offense.

A **qualifying sex offense** is a conviction for illegal sexual behavior committed against an identifiable child or non-consenting adult victim (Harris, Phenix, Hanson, & Thornton, 2003). A sex offense need not be called sexual in its statutory definition to be a qualifying sex offense. Convictions for offenses that involved illegal sexual behavior that resulted in “non-sexual” convictions, or involved non-sexual behaviors that had sexual motives, count as a qualifying offenses. Qualifying sex offenses include:

- contact sex offenses such as sexual assault, attempted sexual assault, and child molestation
- non-contact sex offenses such as exhibitionism, voyeurism, obscene telephone calling, and Internet luring

A non-qualifying sex offense is a conviction for sexual behavior that was illegal but the parties were consenting or no identifiable victim was involved. Non-qualifying sex offenses include:

- consenting sex with an adult in a public place
- soliciting a prostitute
- possessing child pornography
- committing statutory rape where the age difference between the offender and the victim was less than three years

Descriptions of Studies

Study #1. Estimated 5-year Recidivism Rates by Combined VASOR-2 and Static-99R Risk Categories

This study examined 5-year estimated recidivism rates for combined VASOR-2 and Static-99R scores (McGrath, Lasher, & Cumming, 2012b; McGrath, Lasher, Cumming, Langton, & Hoke, 2013). The VASOR-2 and Static-99R are composed primarily of static risk factors, that is, aspects of an individual’s history that cannot be modified. An individual’s scores on these instruments, therefore, would not be expected to change unless an evaluator discovers previously unknown historical risk factors about the individual.

Individuals in the study were 98% (887) of the exhaustive group of 909 convicted adult male sex offenders placed in the community in Vermont between 2001 and 2005. Data on the remaining 2% (22) individuals in this cohort was unavailable.

The average age of the 887 men was 34 years. Almost all (96%) of the men were white, about three fifths (61%) were employed, and almost three quarters (71%) had at least a 12th grade education. Of these individuals, 47% had served a prison sentence for their index sex offense and 53% had not. Of the total, 18% received sex offender treatment in prison and 80% received at least some treatment in the community. All totaled, 74% were on probation, 20% were on furlough, 2% were on parole, and 4% were released from prison without follow-up correctional supervision after serving their maximum prison sentence. A small proportion (2%) of the men in the study had a developmental disability, defined as or having been found eligible for state funded developmental disability services in Vermont or having an IQ of 70 or below.

Using definitions established by the Association for the Treatment of Sexual Abusers (Gordon et al., 1998), the sample was composed of 21% rapists (a contact sexual offense against an individual age 16 or older), 8% non-contact sex offenders (convicted for such offenses as exhibitionism or voyeurism), 13% incest offenders (who committed an offense against the offender’s own biological offspring or a child who has been parented by the offender for at least two years; offenses against an offender’s nieces, nephews, cousins, and grand-children were considered child molestations) and 58% child molesters (who committed a non-incest hands-on sexual offense

against a child age 15 years or younger). Of the child molesters, 50% of the total sample molested girls only and 9% molested at least one boy.

Study #2. Estimated 1- and 3-year Recidivism Rates by Combined VASOR-2 and SOTIPS Risk Categories

This study examined 1- and 3-year estimated recidivism rates for combined VASOR-2 and SOTIPS risk categories (McGrath, Lasher, & Cumming, 2011, 2012a). Whereas the VASOR-2 is composed primarily of static risk factors, the SOTIPS is composed solely of dynamic, that is, changeable risk factors. Combined SOTIPS and VASOR-2 scores predicted the four recidivism types studied and outperformed either instrument alone when both instruments had similar predictive power. Participants who demonstrated treatment progress, as reflected by reductions in SOTIPS scores, have shown lower rates of recidivism than those who do not.

Using the same definitions as in Study #1, individuals in Study #2 were 759 adult male sex offenders who were placed in the community between 2001 and 2007, enrolled in sex offender treatment, and supervised on probation, parole, or furlough. The average age of the men was 34 years. Almost all (96%) of the men were white, about three fifths (58%) were employed, and about three quarters (71%) had at least a 12th grade education. Of these individuals, 41% had served a prison sentence for their index sexual offense and 59% had not; 22% received sex offender treatment in prison. All totaled, 80% were on probation, 17% were on furlough and 3% were on parole. A small proportion (2%) of the men in the study had a developmental disability.

The sample was composed of 18% rapists, 8% non-contact sex offenders, 15% incest offenders and 60% child molesters. Of the child molesters, 51% molested girls only and 8% molested at least one boy.

Recidivism rates were estimated rates based on repeated logistic regression modeling for combined SOTIPS and VASOR-2 scores at approximately 1, 7, and 13 months from the dates individuals began community sex offender treatment. Further details about the study may be found elsewhere (McGrath, Lasher, & Cumming, 2011, 2012a).

Definitions of Recidivism

Recidivism rates were based on new charges for sexual, violent (including sexual), and any criminal offenses, and returns to prison. The definition of a new sex offense included convictions for violation of supervision conditions if the incident could have been charged as a criminal sex offense. Charges were counted based on criminal record checks in the states where each participant was known to have resided during the study period. The Vermont Department of Correction computer database was used to identify returns to prison.

Relative versus Absolute Risk

The recidivism tables contained in this workbook show relative risk rankings and absolute estimated recidivism rates. Relative risk rankings assign an individual's score to a low, moderate-low, moderate-high or high-risk group relative to other Vermont sex offenders. Absolute estimated recidivism rates associate an individual's score with a specific estimated recidivism rate over a specific time period, such as one, three or five years.

Relative rankings and absolute estimated recidivism rates are based on group averages using logistic regression modeling. Group averages may under- or over-represent the true risk of an individual sex offender depending on factors not taken into consideration by the risk instruments. Vermont norms may not apply to other jurisdictions. Reoffense rates for individuals scoring similarly on a risk instrument commonly vary among studies, jurisdictions and over time. Arrest, charge and conviction rates are dependent on variables such as the characteristics of the offenders being studied and the nature of local reporting, investigation and prosecution practices. Of course, detected rates of reoffending underestimate the true rates of reoffending but by magnitudes that are not known.

The most appropriate use of these norms is in situations that approximate, as closely as possible, the conditions under which the norms were developed.

References

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